Pacific Coast Society for Prosthodontics

PCSP 89th Annual Meeting

PCSP2024

TRADITION MEETS TECHNOLOGY

www.pcsp.org

JUNE 19-22

Monterey Marriott and Monterey Conference Center California, USA

Amerian Sones
PCSP President

Brian Goodacre
PCSP Scientific Program Chair

IN COLLABORATION WITH

Monterey Bay DENTAL SOCIETY

CONFERENCE PROGRAM

Welcome to the

Pacific Coast Society for Prosthodontics

June 19-22, 2024
Monterey Convention Center
Monterey, California

2024 Conference Administration
RES Seminars
4425 Cass Street, Suite A
San Diego, CA 92109
Tel: 858 270-1811 Fax: 858 272-7687
Email: res@res-inc.com

2024 PCSP President's Message

Welcome to Monterey, California! The spectacular California coastline is unmatched, natural, and prominent with its majestic beauty similar to the esthetics of precious natural enamel, all created by mother nature! The Monterey Conference center hosts our ***89th Annual PCSP Scientific Program*** with local attractions which will amaze and delight you. Nobel prize winner *John Steinbeck* shared this region with the world through his many novels which I enjoyed while growing up on the Monterey Peninsula. Steinbeck traveled to the Sea of Cortez from Monterey with Doc Rickets in the recently restored Western Flyer sailboat and together they formed a special bond. Steinbeck was the "art" and Doc Ricketts the "science". Their philosophy parallels the "art and science of dentistry". With admiration Steinbeck describes that Ricketts's mind "had no horizons," and that he "taught everyone without seeming to." As mentors and educators this is a trait we all aspire to achieve.

The Monterey Peninsula with its rich history is similar to the rich history of the PCSP as we are wealthy with tradition and fertile with new technology. *"**We were curious**. Our curiosity is not limited, but is as wide and horizonless as that of Darwin," writes John Steinbeck and Ed Ricketts, Sea of Cortez.* **Curiosity** is why we are here- why you and I have traveled far to meet world leaders, prosthodontic experts, and innovators in our field as ***Tradition Meets Technology.***

Scientific Chair, **Dr. Brian Goodacre** has invited global leaders in our field to address critical topics in dentistry today as solutions are offered to expand our knowledge and impact the care our patients receive. A new collaboration with the ***Monterey Bay Dental Society*** will increase awareness of prosthodontics and enhance attendance. Our local arrangements Chair, ***Dr. Curtis Jansen,*** has developed our social events with finesse and expertise. The world-class *Monterey Bay Aquarium* will spark your curiosity as you reconnect with colleagues and enjoy the wonders of marine life. Special guests are the Japanese Prosthodontic Society representatives, faculty and residents from the University of Guadalajara, and our graduate residents who present their research. Members and guests, please make them all feel welcome!

Boost your knowledge and heighten your understanding of various topics as we present the new *electives* for the afternoon sessions. We have utilized our space and AV time to the maximum and hope you will invest your valuable time to engage and heighten your experience. Lastly, I am proud of our new program the *New PCSP Summer Campers*. Look for them with their special PCSP t-shirts and PCSP polo shirts and table exhibit. Thank you for supporting the PCSP! A very special thanks to our 2024 PCSP Sponsors who contribute to not only our annual meeting success but success in your everyday practice of Prosthodontics. Our service to the local Monterey veterans could not be possible without the support of our PCSP Foundation and contributing sponsors such as Straumann and Avadent. Enjoy the meeting!

Thank you and it has been a privilege and honor to serve as your 2024 PCSP President !
Amerian D. Sones DMD, MS, President

Monterey Bay
DENTAL SOCIETY

2024 Monterey Bay Dental Society Welcome

As President of the Monterey Bay Dental Society, I would like to welcome you to the 89th Annual Meeting of the Pacific Coast Society for Prosthodontics. The history and beauty of Monterey provide the perfect backdrop to highlight the science and art of dentistry. This year's theme of "Tradition Meets Technology" exemplifies the timeless values of our profession while embracing cutting-edge advancements. I am pleased to share our lovely Monterey Bay and thank you for sharing your passion and commitment to providing excellence in dentistry. Your presence at the PCSP Conference and contributions to our profession are invaluable.

Yours in health,

Sarah C. Frahm DDS
President, Monterey Bay Dental Society

2023-2024 PCSP Executive Officers

President
Amerian Sones

President-Elect
Jean Wu

Vice-President
Rebecca Boardman

Immediate Past-President
Mike Racich

Secretary
Mark Cruz

Treasurer
Scott Dyer

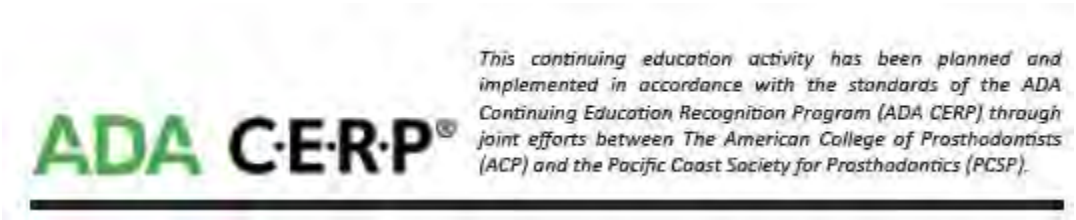
Executive Councilor Brian Goodacre

Executive Councilor Amy Au

Executive Councilor David Carsten

2024 Program - CE Statement

15 hours of CE are available for the main PCSP scientific program and up to 24 total hours of CE are available to those who also attend the 3 elective afternoon sessions.



This continuing education activity has been planned and implemented in accordance with the standards of the ADA Continuing Education Recognition Program (ADA CERP) through joint efforts between The American College of Prosthodontists (ACP) and the Pacific Coast Society for Prosthodontics (PCSP).

ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry. Concerns or complaints about a CE provider may be directed to the provider or to ADA CERP at www.ada.org/cerp.

Continuing education credits issued for participation in the CE activity may not apply toward license renewal in all states/provinces. It is the responsibility of each participant to verify the requirements of his/her state/provincial licensing board(s).

Teaching methods for this annual meeting are lecture based only. Target Audience: Prosthodontists, General Dentists, other dental Specialists, Laboratory Technicians and Dental Auxiliary.

For questions about this program, please contact Dr. Brian Goodacre (bgoodacre@gmail.com) or Dr. Amerian Sones (ameriansones@gmail.com).

2024 Speaker Disclosure Summary

Disclosures of Significant Relationships with Relevant Commercial Companies/Organizations. As required by the Continuing Education Recognition Program (ADA CERP) under the auspices of the American Dental Association policy, every effort has been made to encourage speakers to disclose any commercial relationships or personal benefit, which may be associated with their presentations. This disclosure in no way implies that the information presented is biased or of lesser quality. Attendees of this meeting should be aware of these factors in interpreting the program contents and evaluating recommendations.

The following speakers reported they have relationship(s) with commercial interest(s) relevant to the content of this ADA CERP activity.

Speaker	Company	Relationship
Dr. Nadim Z. Baba	Loma Linda University	Employee
Dr. Wendy Clark	AvaDent Digital Dentures, Dess Implants	Honorarium
Dr. Taiseer Sulaiman	Kuraray, Ivoclar	Honorarium
Dr. Ulrich Volz	SDS Swiss Dental Solutions	Owner/Part Owner
Dr. Chandur Wadhwani	Keystone, FOR, Envista ImplantWise LLC	Consultant Owner/Part Owner
Dr. Hom-Lay Wang	BioHorizons, J Morita, Zimmer, Osteogenics BioMedical, Snoasis BioHorizons, J Morita, Osteogenics BioMedical	Grant/Research Support Honorarium
Dr. Stefan Zweig	University of Southern California, Herman Ostrow School of Dentistry	Employee

The following speakers reported they have no relationship(s) with commercial interest(s) to disclose relevant to the content of this ADA CERP activity.

Dr. Armand Bedrossian	Dr. Takuo Kuboki
Dr. Edmond Bedrossian	Dr. Bach Le
Dr. Avinash Bidra	Dr. Radi Masri
Dr. Sillas Duarte	Mr. James Newman
Dr. Carlo Ercoli	Dr. Marta Revilla Leon
Dr. Charles Goodacre	Dr. Lambert Stumpel
Dr. Joseph Kan	Dr. Amirali Zandinejad
Dr. Thomas J. Kepic	

2024 PCSP Monterey Program Schedule

June 19, 2024

6:00-9:00 PM **Welcome Reception**
Location: Ferrantes Marriott Rooftop
Pre-Registration Required

June 20, 2024

7:00 AM Continental Breakfast - in the Exhibit Hall

Session 1: Everyday Clinical Tips
(Prosthodontic Pearls for Everyday Success)
Moderator: Mike Racich

8:15-8:40 AM **Technology in Adhesive Dentistry:**
Clinical Solutions for Complex Esthetic Rehabilitations
Sillas Duarte

8:45-9:10 AM **Clinical and Science-Based Elements of Lithium Disilicate and Zirconia Restorations… What Every Clinician Must Know!**
Taiseer Sulaiman

9:15-9:40 AM **Prosthetic Complications in Full-Arch Rehabilitations**
Carlo Ercoli

Moderator: Curtis Jansen

9:45-10:25 AM **Reflections on Human Spaceflight - Single Planet Species Do Not Survive**
Astronaut James Newman

10:30-11:00 AM Coffee Break

Session 2: Interdisciplinary Team Collaboration
Moderator: Baldwin Marchack

11:00-11:25 AM **Implant Screw Biomechanics, Complications, Trouble Shooting Retrieval Techniques**
Cheryl Park

11:30-11:55 AM **Saving Teeth Through Endodontic Therapy - What are the Outcomes and What is the Evidence**
Stefan Zweig

12:00-12:50 PM **Almost Lost in the Implant Monomania**
Charles Goodacre, Thomas J. Kepic

1:00-1:30 PM **Open Meeting of the Bylaws and Policy Committee**

1:30-4:00 PM **Glidewell Prosthodontics on the Rise**
Keynote Speaker: Dr. Rella Christiansen
Panelists: Dr. Taylor Manalill, Dr. Cherilyn Sheets, Dr. Jean Wu, Dr. Patricia Swanson, Dr. Pam Maragliano-Muniz and Dr. Stephenie Goddard
Includes Lunch and 2.5 hours of CE
Location: Steinbeck Ballroom
Pre-Registration Required

4:00-5:00 PM **Toast to Our Sponsors**
Location: Jeffers Plaza

June 21, 2024

7:00 AM Continental Breakfast in the Exhibit Hall

7:00-7:45 AM **New Associate Members Breakfast**
All New Associate members, Executive Council to attend
Location: Marriott San Diego Room
Pre-Registration Required

Session 3: Solve the Challenge of Multiple Missing Teeth in the Esthetic Zone
Moderator: Raj Swamidass

8:00-8:30 AM **Keys for Anterior Implant Esthetics**
Hom-Lay Wang

8:35-9:05 AM **Defects Involving Multiple Adjacent Teeth in the Esthetic Zone A Challenging Treatment Dilemma**
Bach Le

9:10-9:40 AM **Inter-Implant Papilla Management in the Esthetic Zone**
Joseph Kan

9:45-10:15 AM Coffee Break

Moderator: Ting-Ling Chang

10:15-10:45 AM **Grad Student Presentations**

Comparison of Surface Roughness and Bacterial Colonization of Recently used Dental Ceramics
Amr Abouzaid

Effect of Fabrication Method on Fracture Strength of Interim Implant-Connecting Bars
Andre Cataluna

Overcoming Silicone Cure Inhibition on Printed Resin Molds
Chen Chen

Debulking and Vestibuloplasty
Alisa Pham

Session 4: Treatment of the Completely Edentulous Patient
Moderator: Arun Sharma

10:50-11:20 AM **Japanese Prosthodontic Society Speaker**
Takuo Kuboki

11:25 -11:55 PM **Contemporary Removable Prosthodontics**
Wendy Clark

12:00-12:30 PM **Pterygoid Implants for Advanced Full Arch Fixed Implant Supported Prosthodontics**
Avi Bidra

12:35 -1:05 PM **All in 4-4-4 Hybrid Prosthesis; Bridging the Affordability Gap**
Lambert Stumpel

1:30-4:00 PM **Annual Business Meeting – Members Only**
Location: Marriott Ferrantes Ballroom
Pre-registration Required

1:30-4:00 PM **Avadent Lunch and Learn: Nonmember Special Event**
Keynote Speaker Dr. Brian Goodacre and Dan Hinkle
Includes Lunch and 2.5 hours of CE
Location: Steinbeck Ballroom Sponsored by AvaDent
Pre-Registration Required

6:30-10:00 PM **Dinner at the Monterey Bay Aquarium**
Includes: Reception, Dinner, and touring the Aquarium
Meet at the Aquarium or ride on one of the limited shuttles
Pre-Registration Required

June 22, 2024

7:00 AM Continental Breakfast in the Exhibit Hall

7:00-7:45 AM Breakfast Meeting for Committee Chairs
Location: Marriott San Diego Room

Session 5: Resolving and Avoiding Complications
Moderator: Don Curtis

8:00-8:25 AM **Navigating Technical Complications with Implant-Supported Prostheses**
Despoina Bompolaki

8:30-8:55 AM **Predictability in Peri-Implantitis Treatment**
David Kim

9:00-9:25 AM **What's: New, Old, Hot and Cold: A Personal Journey Through the Science of Dentistry**
Chandur Wadhwani

9:30-9:55 AM **Implant Re-Rehabilitation: The Operative Sequences for a Successful Outcome**
Nadim Z. Baba

10:00-10:30 AM Coffee Break

Session 6: Visionary Concepts: The Future of Prosthodontics
Moderator: Brian Kucey

10:35-11:00 AM **Virtual Patient: Parameters to Improve its Accuracy, What Works and What Doesn't**
Marta Revilla-Leon

11:05-11:30 AM **Tradition Meets Technology for Full Arch Immediate Load Workflows**
Armand Bedrossian, Ed Bedrossian

11:35AM-12:00 PM **Additive Manufacturing Ceramic in Prosthodontics: What the Future Holds**
Amirali Zandinejad

12:05-12:30 PM **Prospects of Ceramic Implants in Modern Implantology**
Ulrich Volz

12:35-1:00 PM **Achieving Prosthodontic Utopia: What Does the Future Hold?**
Radi Masri

1:05-1:30 PM **Closing Remarks & 2025 Preview**

1:30-4:00 PM **Veterans Volunteer VIP Lunch**
RSVP Required

1:30-4:30 PM **PCSP and Monterey Bay Dental Society Special Program Implants in the Growing Patient**
Keynote Speaker: Dr. Ann Wei Sponsored by Nobel Biocare
Luncheon and 3 hours CE
Location: Monterey Marriott: San Carlos 1 & 2
Pre-Registration Required

1:30-4:00 PM **Straumann Lunch and Learn**
Sponsored by Straumann Corporation
Keynote Speakers: Dr. Armand Bedrossian and
Dr. Edmund Bedrossian
Lunch Provided - 2.5 hours of CE
Location: Steinbeck Ballroom
Pre-Registration Required

6:30-11:00 PM **Presidents VIP and Installation Dinner/Dance**
Location: Ferrantes Marriott Rooftop
Pre-Registration Required

June 23, 2024

9:00 AM-1:00 PM **Farewell Coffee/Pastries &Whale Watching Tour**
Location: Monterey Wharf 1
Pre-Registration Required

The 2024 Scientific Program Schedule is subject to change.

2024 Invited Speakers

Technology in Adhesive Dentistry: Clinical Solutions for Complex Esthetic Rehabilitations

Speaker: Sillas Duarte
Time: June 20, 2024 8:15 - 8:40 AM

With a conservative approach in mind, clinicians should be able to provide patients with minimally-invasive, functional, highly-esthetic, and long-lasting solutions. These solutions should take into consideration patient needs and desires, functional issues, available materials, and clinical approaches. Novel conservative restorative techniques are able to combine a variety of treatment modalities for a large range of clinical situations including some that until recently were not considered possible. Through ultra-structural microscopically interaction between biomaterials and dental structure, esthetic and long-lasting clinical solutions can be attained while simultaneously preserving the integrity of the enamel and dentin. This presentation provides a systematic and scientific approach for selecting esthetic treatment modalities based on original research data with special emphasis on technology and new materials design and selection. As predictable and advanced as these solutions are, they are not risk free; thus, failures and complications are still a clinical reality. Key risk factors will be discussed with the understanding that complex clinical rehabilitations have a much higher likelihood of complications and failures that have to be factored in prior to initiation of treatment.

Learning Objectives:

At the end of the presentation attendees will be able to:

1) Understand challenges related establishing a stable adhesive interface to ceramic, composite, and dental structures

2) Choose adhesive strategies for different clinical situations

3) Understand the advantages and limitation of adhesive procedures for ceramic vs contemporary resin composite CAD/CAM solutions

Prof. Dr. Sillas Duarte is Associate Dean of Comprehensive Care and Rex Ingraham Chair in Restorative Dentistry, Herman Ostrow School of Dentistry, University of Southern California. Dr. Duarte is Director of the Advanced Program in Operative & Adhesive Dentistry and the Master of Science in Biomaterials and Digital Dentistry at USC. He is the former editor-in-chief of Quintessence of Dental Technology (QDT). Also, Dr. Duarte is Section Editor in Adhesive Dentistry of the Journal of Esthetic and Restorative Dentistry and the International Journal of Esthetic Dentistry, and has served on the editorial boards of several journals. Dr. Duarte has lectured and performed hands-on courses nationally and internationally on esthetic dentistry, biomaterials, minimally invasive dentistry, and adhesion. He has been involved in teaching cutting-edge clinical techniques and technologies related to esthetic and adhesive dentistry. His research and clinical work focus on bonding to dental structures, composites, ceramics, and CAD/CAM technologies.

Clinical and Science-Based Elements of Lithium Disilicate and Zirconia Restorations… What Every Clinician Must Know!

Speaker: Taiseer Sulaiman
Time: June 20, 2024 8:45 - 9:10 AM

There is a scarcity of evidence-based research supporting the use of contemporary ceramics in dental practices today. Poor clinical trials eventually lead to poor systematic reviews, and load to failure laboratory tests have little clinical relevance. This leaves clinicians in doubt about which ceramic restorative material is best for their patients. The presentation will focus on lithium disilicate and monolithic zirconia, including the various generations. This will include a discussion of mechanical and optical properties, wear of natural antagonists, as well as ceramic adjustment, finishing, and polishing. A series of new retrospective studies will also be introduced to evaluate the survival of these ceramics.

Objectives:

1. Understand the mechanical (including wear characteristics) and optical properties of lithium disilicate and zirconia materials, as well as their implications for clinical practice

2. Determine the best preparation design and cementation procedure for each ceramic material.

3. Evaluate the projected clinical success of these two materials, based on the most current research.

TAY-see-er SU-la-men is a Tenured Associate Professor and the Director of the Advanced Operative Dentistry and Biomaterials Research at the Adams School of Dentistry, University of North Carolina at Chapel Hill where he earned his clinical certificate in Operative Dentistry and his PhD in Dental Materials from the Department of Prosthetic Dentistry and Biomaterial Sciences from the University of Turku in Finland in collaboration with the Department of Operative Dentistry at UNC. Dr. Sulaiman is a wet-handed clinician, and a researcher who is passionate about bridging the gap between dental research and clinical application. Dr. Sulaiman's research focus is on dental ceramics, adhesion, cements, color and appearance in dentistry, and biomimetics. He has published over 80 peer-reviewed articles, abstracts, and book chapters. He is a member of many academies including the Academy of Operative Dentistry (where he serves as councilor to the academy), the Society of Color and Appearance in Dentistry, IADR/AADR, and the American Dental Association. He has presented on numerous national and international stages and serves as a reviewer for many peer-reviewed journals.

Prosthetic Complications in Full-Arch Rehabilitations

Speaker: Carlo Ercoli

Time: June 20, 2024 9:15 - 9:40 AM

Dental implants treatment is generally associated with positive patient-centered outcomes. It provides a safe and predictable treatment option, especially for completely edentulous patients who otherwise, would be faced with wearing conventional removable prostheses. While a number of digital workflows have been proposed, we are ultimately treating an analog patient and it is in the oral cavity that the proverbial rubber "meets the road", especially when it comes to biomaterial complications. These complications are quite frequent in full-arch restorations, appear almost unavoidable, and occur at a greater rate than in partially edentulous patients. With dental implant being placed in different patient age cohorts, the clinician and the patient will be faced with the need to repair and remake the prostheses several times over the lifetime of a patient. This presentation will review the prosthetic complications that are associated with full-arch implant treatment modalities, the relevant patient outcomes, and present the results of an ongoing clinical study of highly cross-linked polymeric-metal biomaterials combination.

Lecture objectives:

1) To highlight the available data related to prosthetic biomaterials complications in full-arch implant prostheses.
2) To understand how monolithic polymeric materials may provide a predictable and affordable treatment alternative.
3) To describe the results of an ongoing clinical study of highly cross-linked polymeric-metal biomaterials combination for full-arch prostheses.

Dr. Carlo Ercoli is Professor of Prosthodontics, Periodontics and Implant Surgery and Chairman of the Prosthodontic Department at the University of Rochester, Eastman Institute for Oral Health where he also serves as the Director for the Center of Excellence for Digital Dentistry. He graduated from the "Enrico Berlinguer" Dental Technology Institute in Rome in 1987 and obtained his DDS from the University of Siena, Italy in 1993. He specialized in Prosthodontics in 1996 at the Eastman Dental Center in Rochester, New York and completed a specialty training in Orofacial Pain and Temporomandibular Joint Disorders in 1997. In 2012, he achieved specialty certification in Periodontology. In 2019, he obtained his MBA from the Simon Business School of the University of Rochester.

Dr. Ercoli is a Past President of the American Prosthodontic Society, Executive Council Member of the Academy of Prosthodontics, Honorary Member of the Italian Academy of Prosthodontics, Founding Member of the Italian Society of Prosthodontics and Oral Rehabilitation, Education and Research Director of the American College of Prosthodontists, Board Member of the American College of Prosthodontists Education Foundation, and Director of the American Board of Prosthodontics. He served as Executive Council member of The Journal of Prosthetic Dentistry, Scientific Program Chair of the American Prosthodontics Society, American College of Prosthodontists,

American Academy of Fixed Prosthodontics, and Academy of Prosthodontics (2024 Program). Dr. Ercoli is a diplomate of the American Boards of Prosthodontics and Periodontology, an ITI Fellow and Chair of the USA ITI East Region, in addition to serving as a Member of the World Workshop on the Classification of Periodontal and Peri-implant Diseases and Conditions. He holds memberships in the American Academy of Periodontology, American College of Prosthodontists, American Dental Education Association, Academy of Osseointegration, American Academy of Fixed Prosthodontics, Greater New York Academy of Prosthodontics, American Prosthodontic Society and American Dental Education Association. He lectures nationally and internationally on dental implantology.

Reflections on Human Spaceflight - Single Planet Species Do Not Survive

Keynote Speaker: Astronaut James Newman
Time: June 20, 2024 9:45 - 10:25 AM

JAMES H. NEWMAN (PH.D.)

NASA ASTRONAUT (FORMER) PERSONAL DATA

Born October 16, 1956, in the Trust Territory of the Pacific Islands (now the Federated States of Micronesia), but considers San Diego, California, to be his hometown. Married to Mary Lee Pieper. Three children. His mother, Ms. Ruth Hansen, and his father, Dr. William Newman, are both residents of San Diego. Mary Lee's parents, Mr. & Mrs. Wylie Bernard Pieper, reside in Houston, Texas. EDUCATION: Graduated from La Jolla High School, San Diego, California in 1974; received a bachelor of arts degree in physics from Dartmouth College in 1978, a master of arts degree and a doctorate in physics from Rice University in 1982 and 1984, respectively. ORGANIZATIONS: Member of the American Physical Society, Sigma Xi, and American Institute of Aeronautics and Astronautics.

SPECIAL HONORS: Selected by NASA JSC to attend the 1989 summer session of the International Space University in Strasbourg, France. Awarded the 1995 Superior Achievement Award by the Institute of Navigation for "outstanding accomplishments as a Practical Navigator" for his work on GPS (Global Positioning System) on the Space Shuttle. 1996 NASA Exceptional Service Medal. Recipient of the American Astronautical Society Flight Achievement Award (1994, 1999) for his work as a member of the STS-51 and STS-88 crews. As the leader of the Space Vision System Development Team, Newman shared the 2001 Rotary National Award for Space Achievement Foundation's Team Award and shared a 2002 NASA Group Achievement Award to the Space Vision System Team. EXPERIENCE: After graduating from Rice University in 1984, Dr. Newman did an additional year of post-doctoral work at Rice. In 1985, Dr. Newman was appointed as adjunct professor in the Department of Physics and Astronomy at Rice University. That same year he came to work at NASA's Johnson Space Center, where his duties included responsibility for conducting flight crew and flight control team training for all mission phases in the areas of Orbiter propulsion, guidance, and control. When selected for the astronaut program he was working as a simulation supervisor responsible for a team of instructors conducting flight controller training. Selected by NASA in January 1990, Dr. Newman began astronaut training in July 1990. His technical assignments since then include: Astronaut Office Mission Support Branch where he was part of a team responsible for crew ingress/strap-in prior to launch and crew egress after landing; Mission Development Branch working on the Shuttle on-board laptop computers; Chief of the Astronaut Office Computer Support Branch responsible for crew involvement in the development and use of computers on the Space Shuttle and Space Station. While still assigned to the Astronaut Office Dr.

Newman has also worked in various assignments at NASA. Detailed to the Space Shuttle Program Office from March 1999 to March 2001, Newman served as the Remote Manipulator System (RMS) Integration Manager responsible for the Orbiter Canadian robotic arm and the Space Vision System. Dr Newman was detailed to the International Space Station (ISS) Program Office from December 2002 through January 2006, serving as NASA's Director, Human Space Flight Program, Russia. As the ISS Program Manager's lead representative to the Russian Federal Space Agency (Roskosmos) and its contractors, his responsibilities included oversight of NASA's human space flight program in Russia. This included NASA operations, logistics, and technical functions in Moscow, at NASA's Mission Control Center operations in Korolev, and NASA's crew training at the Gagarin Cosmonaut Training Center in Star City. In March 2006, Dr. Newman was detailed to the Naval Postgraduate School (NPS) in Monterey, California, as a NASA Visiting Professor in the NPS Space Systems Academic Group. Dr. Newman left NASA in July 2008 to accept a position as Professor, Space Systems at NPS to continue his involvement in teaching and research, with an emphasis on using very small satellites in hands-on education and for focused research projects of national interest. -- more-- National Aeronautics and Space Administration Biographical Data Lyndon B. Johnson Space Center Houston, Texas 77058 SPACE FLIGHT EXPERIENCE: Dr. Newman flew as a mission specialist on STS-51 (1993), STS-69 (1995), STS-88 (1998) and STS-109 (2002). A veteran of four space flights, Dr. Newman has logged over 43 days in space, including six spacewalks totaling 43 hours and 13 minutes. STS-51 Discovery, (September 12-22, 1993) was launched from and returned to make the first night landing at Kennedy Space Center, Florida. During the ten-day flight, the crew of five deployed the Advanced Communications Technology Satellite (ACTS) and the Orbiting and Retrievable Far and Extreme Ultraviolet Spectrometer on the Shuttle Pallet Satellite (ORFEUS/SPAS). Newman was responsible for the operation of the SPAS, was the backup operator for the RMS, and on flight day five conducted a seven-hour, five-minute spacewalk with Carl Walz. The extravehicular activity (EVA) tested tools and techniques for use on future missions. In addition to working with numerous secondary payloads and medical test objectives, the crew successfully tested a Global Positioning System (GPS) receiver to determine real-time Shuttle positions and velocities and completed a test routing Orbiter data to on-board laptop computers. STS-51 made 158 orbits of the Earth, traveling 4.1 million miles in 236 hours and 11 minutes. STS-69 Endeavour (September 7-18, 1995), was an eleven-day mission during which the crew successfully deployed and retrieved a SPARTAN satellite and the Wake Shield Facility (WSF). Also on board was the International Extreme Ultraviolet Hitchhiker payload, numerous secondary payloads, and medical experiments. Newman was responsible for the crew's science involvement with the WSF and was also the primary RMS operator on the flight, performing the WSF and EVA RMS operations. He also operated the on-orbit tests of the Ku-band Communications Adaptor, the Relative GPS experiment, and the RMS Manipulator Positioning Display. The mission was accomplished in 171 Earth orbits, traveling 4.5 million miles in 260 hours, 29 minutes. STS-88 Endeavour (December 4-15, 1998), was the first International Space Station assembly mission. During the twelve-day mission the Unity module was mated with Zarya module. Newman performed three spacewalks with Jerry Ross, totaling 21 hours, 22 minutes. The primary objective of the spacewalks was to connect external power and data umbilicals

between Zarya and Unity. Other objectives include setting up the Early Communication antennas, deploying antennas on Zarya that had failed to deploy as expected, installing a sunshade to protect an external computer, installing translation aids, and attaching tools/hardware for use in future EVA's. The crew also performed IMAX Cargo Bay Camera (ICBC) operations, and deployed two satellites, Mighty Sat 1, sponsored by the Air Force, and SAC-A, from Argentina. The mission was accomplished in 185 orbits of the Earth, traveling 4.6 million miles in 283 hours and 18 minutes. STS-109 Columbia (March 1-12, 2002). STS-109 was the fourth Hubble Space Telescope (HST) servicing mission and the 108th flight of the Space Shuttle. The crew of STS-109 successfully upgraded the Hubble Space Telescope with new solar arrays, a new power control unit, and a new camera, and also installed a cooler to reactivate an old infrared camera. This work was accomplished during a total of five spacewalks in five consecutive days. Dr. Newman performed two spacewalks with crewmate Mike Massimino, totaling 14 hours and 46 minutes. During the first of these spacewalks, Newman and Massimino replaced an old solar array and a reaction wheel assembly with new units. During their second spacewalk they replaced the old Faint Object Camera with the state-of-the-art Advanced Camera for Surveys, producing a ten-fold increase in Hubble's imaging capability. STS-109 orbited the Earth 165 times, traveling 3.9 million miles in 262 hours and 10 minutes

NASA Experience:

- Dec 1985 to July 2008: NASA Johnson Space Center (JSC).
    - Dec 2002 to Jan 2006: Director, NASA's Human Spaceflight Program, Russia (Moscow)
    - July 1990 to July 2008: Astronaut Office, JSC

STS-51, 69, 88, 109 (four flights, six spacewalks)

- Dec 1985 to July 1990: Training Division, JSC

Naval Postgraduate School (NPS) Experience:

https://nps.edu/faculty-profiles/-/cv/jhnewman

Space Systems Academic Group (SSAG)

- October 2016 to the present: Chair and Professor, SSAG
- October 2015 to August 2016: NPS Acting Provost
- July 2008 to October 2015: Professor, SSAG
- July 2008: transferred from NASA to the Department of the Navy
- March 2006 to July 2008: NASA Visiting Professor at NPS

Research interests:

Since returning to Academia after a career at NASA, research interests at NPS include the use of CubeSats, rockets, and high-altitude balloons for focused research of National interest. Topics include paradigm-shifts in cost and capability using these platforms with payloads for over-the-horizon comms and other purposes. Hands-on, laboratory projects are used to motivate the research and learning process. Academic productivity includes a number of publications, presentations, and two patents, authored with students and colleagues.

Recently taught classes include:

SS1100 – Introduction to Programming for Space Applications

SS3400 / SS3500 – Orbital Mechanics and Launch Systems

SS3861 – Payload Design I

SS4861 – Payload Design II

Awards: include the Department of the Navy Superior Civilian Service (2016), the AIAA Haley Space Flight Award (2014), Rice University Distinguished Alumni Award (2007), and NASA's Space Flight Awards (STS-51, 69, 88, 109).

Memberships: Member of the Association of Space Explorers, American Physical Society, Sigma Xi, and an Associate Fellow of the American Institute of Astronautics and Aeronautics.

Implant Screw Biomechanics, Complications, Troubleshooting & Retrieval Techniques

Speaker: Cheryl Park
Time: Jun 20, 2024 11:00 - 11:25 AM

Mechanical complications of implant restorations are inevitably encountered in today's practices. Knowledge of basic screw mechanics and treatment plan decisions may prevent certain mechanical complications. However, when these problems do occur, various troubleshooting, retrieval techniques play a vital role in successfully overcoming these complications and continuing the best outcome for patient care.

3 learning objectives:

1. To learn about implant screw mechanics and related treatment decisions for preventing complications

2. To identity different mechanical screw complications that may occur during implant treatment and maintenance

3. To learn about the troubleshooting process and techniques available for overcoming an implant screw complication

Saving Teeth Through Endodontic Therapy - What are the Outcomes and What is the Evidence

Speaker: Stefan Zweig
Time: Jun 20, 2024 11:30 - 11:55 AM

The decision to include endodontically treated teeth in a restorative treatment plan is often difficult. The availability of other predictable treatment alternatives (dental implants) further complicates the issue. Yet, the retention of the natural dentition has many benefits for the patient. Endodontic success rates as defined in the literature are high and continue to climb with the advent of new technologies and treatment modalities. But tooth longevity and function are undeniably tied to restorative and periodontal factors. This lecture will focus on the evidence that endodontic therapy is still a viable and successful alternative for saving teeth which can be strategically used in restorative treatment plan. The prognosis for endodontically treated teeth will be considered along with various treatment endodontic treatment modalities which must be considered when saving natural teeth.

Learning Objectives

1. Learn the success rates of the various endodontic modalities.
2. Learn the application and viability of applying these modalities clinically.
3. Learn guidelines as to when and when not to rely on endodontically treated teeth based on their strategic value in the treatment plan and their prognosis.
4. Consider the viability of performing various endodontic procedures to save the natural dentition.

Dr. Stefan Zweig graduated from UCLA in 1982 with a B.S. in Biochemistry. He received his dental degree from the University of Southern California in 1986 and his Certificate in Endodontics from USC in 1992. He maintained a private solo practice limited to endodontics in San Marino, California from 1992 until 2019. In addition, Dr. Zweig maintained a faculty position at USC from 1992 until 1998 in the Department of Endodontics during which time he served as the Assistant Director of Graduate Endodontics. Dr. Zweig is a Past President of the Southern California Academy of Endodontists and The California Association of Endodontists. He has served on the Interdisciplinary Committee of the California Dental Association, on numerous AAE Committees, and on the Board of Directors and as President of the American Association of Endodontists. He is a Fellow of the American College of Dentists and the Pierre Fauchard Academy. Dr. Zweig has lectured locally, nationally, and internationally in the field of endodontics. Currently, Dr. Zweig serves as an Associate Professor of Clinical Dentistry, Department of Endodontics and Periodontics, at the Herman Ostrow School of Dentistry of the University of Southern California.

Almost Lost in the Implant Monomania: Giving Teeth a Chance and The Benefits of Collaboration When Implants Are Needed


Speakers: Charles Goodacre, Thomas J. Kepic
Time: June 20, 2024 12:00 PM - 12:50 PM

Interdisciplinary patient treatments will be used to demonstrate the benefits of integrating periodontics and prosthodontics, thereby permitting the retention of teeth with advanced dental disease and serving as an excellent alternative to extraction and implant placement. When patients do require implants this presentation will demonstrate the advantages of collaboration.

Objectives:

1. Show data regarding the long-term survival of periodontally treated teeth
2. Discuss the cost-effectiveness of saving teeth versus implants
3. Illustrate the advantages of tooth retention
4. Show examples of challenging implant treatments where collaboration was beneficial

Dr. Goodacre received his DDS degree from Loma Linda University and received an MSD degree following completion of a combined program in Prosthodontics and Dental Materials at Indiana University. He served as Chair of the Department of Prosthodontics at Indiana University and as Dean of the Loma Linda University School of Dentistry. He is a Diplomate of the American Board of Prosthodontics, Past-President of the American Board of Prosthodontics, and Past-President of the American College of Prosthodontists. He is a Distinguished Professor and teaches in the Advanced Education Program in Implant Dentistry at Loma Linda University and maintains a practice in Upland, CA devoted to prosthodontics and implant dentistry.

Thomas J. Kepic received his DDS from the University of Buffalo and a Certificate in Periodontics and MSD from Indiana University. He taught at UC San Francisco before moving to Upland, CA where he has been in private practice for over four decades. He is past president for the California Society of Periodontists and was Region Leader in Periodontics for the Inland Empire for over 25 years. He is past president for the Western Society of Periodontology and the first to serve two terms. Kepic was a Trustee for the American Academy of Periodontology and served on multiple committees. He is a Diplomate of the American Board of Periodontology and serves as an Examiner for the Board. His passion for periodontics includes understanding the Prognosis for a compromised tooth and the ability to save many teeth that would otherwise be lost. He is a visiting lecturer at 14 universities.

Glidewell Prosthodontics on the Rise Luncheon

June 20, 2024 1:30 PM - 3:30 PM

Keynote Speaker: Dr. Rella Christiansen

Panelists: Dr. Taylor Manalili, Dr. Cherilyn Sheets, Dr. Jean Wu, Dr. Patricia Swanson, Dr. Pam Maragliano-Muniz and Panel

Moderator/Host: (Stephenie Goddard, CEO Glidewell)

Sponsored by Glidewell

2.5 hours of CE and Luncheon is provided

Location: Steinbeck Ballroom 1:30-4:30pm

Grab your lunch and join keynote speaker Dr. Rella Christensen, as she kicks off an insightful and inspiring session led by Glidewell CEO, Stephenie Goddard, with a panel of five extremely talented prosthodontists.

Keynote: Rella Christensen

Why Clinical Research is Important to Dentistry: Get the latest updates from TRAC Research and gain perspective on industry data that affects material selection and clinical procedures.

Career Journeys in Dentistry: Dr. Taylor Manalili, Dr. Cherilyn Sheets, Dr. Jean Wu, Dr. Patricia Swanson, Dr. Pam Maragliano-Muniz and Panel

Moderator/Host: (Stephenie Goddard, CEO Glidewell)

Intro: Sharing personal stories and experiences of how panelists entered the field of dentistry and navigated their careers.

Navigating Career Transitions-Leveraging your prosthodontic expertise for unconventional contributions

Balancing Clinical Practice with Research and Education

Mentorship and Support Networks

Strategies for maintaining a healthy work-life balance in a demanding profession

Glidewell CEO Stephenie Goddard is an executive leader with multidisciplinary experience in organizational development, business strategy, change management, customer experience and digital transformation. She joined Glidewell in 2006 as vice president of human resources, establishing various programs that have served to augment the company's relentless expansion. In 2019, she established the Guiding Leaders program to empower women dentists throughout the U.S. in all facets of business

and leadership, and the following year she received the Mentor Award from The Lucy Hobbs Project® (Benco Dental Supply Co.; Pittston, Pa.).

Dr. Rella Christensen cofounded the nonprofit Clinical Research Associates in 1976 (later known as the Clinicians Report Foundation) and served as its director for 27 years. Currently, Dr. Christensen is the Director of Technologies in Restoratives and Caries (TRAC) Research, Inc., a nonprofit institute devoted to long-term clinical studies on restorative materials and oral microbiology. Most recently she and her lab colleagues joined the University of Utah School of Dentistry in a collaborative agreement to study the microbiology of dental caries. She has authored many published scientific studies and articles.

Dr. Patricia Swanson is the director of predoctoral prosthodontics at the Stony Brook University School of Dental Medicine. She earned her DDS from the University at Buffalo School of Dental Medicine, and then earned her certificate in the advanced specialty of prosthodontics from Stony Brook University. Dr. Swanson has performed research in dental cements and implants, and she has a special interest in removable prosthodontics. She maintains a faculty practice in prosthodontics in Stony Brook, New York, and she is a Diplomate of the American Board of Prosthodontic

Dr. Pamela Maragliano-Muniz- Based in Salem, Massachusetts, began her clinical career as a dental hygienist. She went on to attend Tufts University School of Dental Medicine, where she earned her doctorate in dental medicine. She then attended the University of California, Los Angeles, School of Dental Medicine, where she became board-certified in prosthodontics. Dr. Maragliano-Muniz owns a private practice, Salem Dental Arts, is the chief editor of Dental Economics. and lectures on a variety of clinical topics.

Dr. Jean Wu graduated with a Bachelor of Dental Science degree in 1990 and earned a Masters in Prosthodontics in 1994 from the University of Melbourne, Australia. She completed advanced training in Maxillofacial Prosthetics studying at the University of Pittsburgh, Pennsylvania. Dr Wu maintained a full time Prosthodontic private practice in Australia and was a Prosthodontist at the Royal Children's Hospital of Melbourne. After relocating to the United States in 1999, Dr. Wu earned a DDS at the University of Tennessee and was an instructor and lecturer in the Restorative Dentistry Department. Dr. Wu is Partner in the Sheets, Paquette, and Wu Dental Practice and on faculty with the Newport Coast Oral Facial Institute, a non-profit international teaching and research center. She is also actively involved with several research projects on dental implants and materials, published articles in several dental journals, and Editor of the Pacific Coast Society for Prosthodontics.

Dr. Cherilyn Sheets maintains a full-time private practice in Newport Beach, California for prosthodontics and esthetic rehabilitative dentistry. She is an international educator, clinician, author and researcher. Dr. Sheets has published over 100 peer-reviewed articles, chapters for textbooks, and given lecturers/hands on training to thousands of clinicians. She has been active in her Alma Mater, USC Herman Ostrow School of Dentistry, in various roles over the years since graduation. She holds numerous Fellowships in Dental Organizations. Dr. Sheets is the Founder and Co-Executive Director of the Newport Coast Oral Facial Institute, a non-profit research and educational institute. She has co-invented a new dental diagnostic (InnerView Systems) and co-founded a company to house the patents and bring the science to the marketplace (Perimetrics Inc). She is a Past-President of both the American Association of Women Dentists and the American Academy of Esthetic Dentistry, as well as being involved in professional meeting planning for decades.

Dr. Taylor Manalili is director of clinical prosthodontics at Glidewell. In the onsite dental clinic at Glidewell, Dr. Manalili helps to enhance laboratory protocols, conduct clinical research, and perform advanced restorative work — including implant placement, chairside restorations, and full-mouth rehabilitations. She received a Bachelor of Science degree in chemical engineering from Northeastern University and a Doctor of Dental Surgery degree from Stony Brook University, where she also obtained an advanced certificate in prosthodontics and digital technologies. Dr. Manalili completed her fellowship and diplomate in the International Congress of Oral Implantologists. She joined the Resnik International Implant Institute as a prosthodontic faculty member and has over ten years of teaching experience in diverse education settings. She completed Glidewell's Guiding Leaders program in 2019.

Keys for Anterior Implant Esthetics

Time: June 21, 2024 8:00- 8:30 AM
Speaker: Hom-Lay Wang

Implant-supported restorations, whether single or multiple, have emerged as the preferred therapeutic choice for both professionals and patients when addressing partial and total edentulism. When implants are positioned optimally, coupled with appropriate abutment selection, consideration of surrounding implant phenotypes, meticulous prosthetic loading, and consistent maintenance, they exhibit remarkably high success rates and yield pleasing esthetic outcomes, particularly in the anterior regions. This presentation will delve into an exploration of the pivotal factors pivotal for achieving aesthetically pleasing anterior results. These factors encompass the precise 6D positioning of implants, ensuring an adequate presence of peri-implant phenotypes, and meticulous design considerations for prosthetic restorations, among other crucial elements. Moreover, an informative decision tree will be showcased, offering clinicians a valuable tool to navigate the decision-making process and choose the most suitable path for each individual case.

Educational objectives:

- Explore the utilization of implant-supported restorations for replacing missing dentition while attaining aesthetically pleasing outcomes, particularly in the anterior regions.
- Comprehend and apply a decision tree approach to ensure consistent and predictable achievement of anterior implant esthetics.

Hom-Lay Wang, DDS, MSD, PhD, Professor and Director of Graduate Periodontics at the University of Michigan. Dr. Wang has co-edited 3 textbooks and published over 800 scientific papers. He serves as the President of the Academy of Osseointegration and co-Editor-in-Chief for CIDRR, Associate Editor for IJOMI and IJOI. Dr. Wang is a recipient of several distinguished awards, including the AAP Outstanding Educator Award, Distinguished Scientist Award, Master Clinician Award, and the Clinical Research Award.

Defects Involving Multiple Adjacent Teeth in the Esthetic Zone – A Challenging Treatment Dilemma

Time: June 21, 2024 8:35 - 9:05 AM
Speaker: Bach Le

Many patients with adjacent missing teeth in the “esthetic zone” present to us with less-than-ideal alveolar ridge form due to severe hard and soft tissue loss. While many techniques offer excellent results for reconstruction of these defects, few can be said to guarantee success. A bone or soft tissue augmentation procedure to correct a ridge defect in the esthetic zone that is not fully successful in correcting the defect often ensures the use of prosthetic pink. This leads to the treatment dilemma: “if we have to use a little pink, why not use a lot of pink” and spare the patient the painful augmentations in the first place? The aim of this lecture is to critically evaluate the current evidence to determine the predictability of various bone augmentation techniques for vertical ridge defects for implant placement and when to consider more conservative alternative treatment options. A series of cases have been gathered to illustrate risk assessment and predictable management of various critical size defects ranging from moderate to severe defects.

Objectives:

1. Describe the anatomic basis and principles of vertical hard tissue grafting for implant site development.

2. Describe a simple diagnostic parameter to assess the risks involved in the treatment of each individual patient.

3. Apply practical methods of handling the vertically deficient ridge

Dr. Bach Le completed his specialty training in Oral & Maxillofacial Surgery at Oregon Health Sciences University and is currently Clinical Associate Professor at the Herman Ostrow School of Dentistry at USC. Dr. Le has authored over 21 chapters in textbooks on bone regeneration and dental implants and has published extensively in peer-review journals. Dr. Le was inducted as an Honorary Member of the American College of Prosthodontists and is a recipient of the Charles E. English Award in Clinical Science. He is a Diplomate of the American Association of Oral & Maxillofacial Surgeons and holds Fellowship in the American College of Dentists, the International College of Dentists and the International Association of Oral & Maxillofacial Surgeons.

Inter-Implant Papilla Management in the Esthetic Zone

Time: June 21, 2024 9:10 - 9:40 AM
Speaker: Joseph Kan

Achieving anterior inter-implant papilla esthetics is challenging.

Understanding the biologic and physiologic limitations of inter proxima`l soft and hard tissue will facilitate predictability in complex esthetic situations.

This presentation will focus on current implant papilla treatment philosophies and methodologies for replacing currently missing teeth and the management of patients who will be losing multiple adjacent teeth in the esthetic zone.

Objectives:

1. Prognostic variables for inter-implant papilla esthetics
2. Hard and soft tissue limitations
3. What will root shield do for inter-implant papilla

Dr. Kan completed training from Loma Linda University. He is a professor and maintains a private practice.

Grad Student Presentations
10:15-10:45 AM June, 21, 2024

Comparison of Surface Roughness and Bacterial Colonization of Recently used Dental Ceramics

Speaker: Amr Abouzaid

Purpose: To assess the effect on surface roughness of a liquid ceramic on 3-Y_TZP compared with polished 3-Y_TZP before and after thermocycling.

Methodology: Three groups; Group PM (3-Y_TZP, MiYO colored, polished). Group PZ (3-Y _TZP, polished). Group M (3-Y_TZP & MiYO colored). Surface roughness was measured before and after artificial aging. Defined amount of bacteria were added. Ra and CFU count values were compared among groups.

Findings: Group PZ showed the lowest CFU followed by group PM. Surface roughness and CFU count were correlated. Thermocycling increased surface roughness.

Dr. Abouzeid is originally from Egypt, he received his BDS from the Faculty of Dentistry, Tanta University in 2014, and after that, he joined the Egyptian military for 14 months before he started his general dentistry private practice.

In 2016 he started his journey teaching photography and esthetic dentistry courses. In 2021, he joined the graduate prosthodontics residency program at the University of Washington. In January 2024 he completed his research project and presented his master's thesis at U.W. After graduation, Dr. Abouzeid is planning to continue his academic journey by joining a faculty position in the U.S.

Effect of Fabrication Method on Fracture Strength of Interim Implant-Connecting Bars

Speaker: Andre Cataluna

Comfort and function are critical for quality of life in post-maxillectomy patients. Immediate implant placement and early loaded implant-connecting bars are utilized to address these objectives, improving retention and stability of interim obturators while simultaneously splinting and minimizing implant movement. While several fabrication methods have been employed, there is a lack of research comparing their fracture resistance in the setting of maxillofacial prosthetics. The purpose of the present study is to compare the fracture resistance of interim implant bars fabricated via three methods: heat processed polymethyl methacrylate (PMMA), milled PMMA, and printed resin.

In maxillectomy patients, initial delivery of an interim obturator can often be met with challenges related to retention and stability during the early phases of healing. The comfort and functionality of these prosthetic devices are paramount for enhancing quality of life post-maxillectomy. To tackle these challenges, immediate implant placement and early loading of implant-connecting bars are employed to enhance the retention and stability of interim obturators. Furthermore, interim bars serve to splint and immobilize implants, mitigating the risk of individual implant movement. Despite various manufacturing methods for these bars, no prior research has investigated their susceptibility to fracture within this clinical context.
The purpose of the present study is to compare the fracture resistance of interim implant bars fabricated with three methods: heat processed polymethyl methacrylate (PMMA), milled PMMA, and printed resin (SprintRay OnX). To conduct this study, a stone master cast with two Nobel external hex implant analogs was fabricated. Analogs were spaced 14mm apart from center to center and an implant-connecting bar measuring 6mm in height and 5mm in width was waxed up. The bar was then scanned, and from this design, 20 uniform specimens were fabricated using milled PMMA (N = 10) and 3D-printed resin (N = 10). Specimens from the two groups were luted to titanium cylinders using self-cured PMMA and flowable composite resin, respectively. A transfer jig fabricated from the master cast was then utilized to fabricated 10 working casts. 10 wax pattern bars were milled, luted to titanium cylinders on the working casts, invested, and boiled out. Heat processed PMMA bars (N = 10) were then fabricated directly onto titanium cylinders. All implant bars were connected to the master cast and new abutment screws were torqued to 35Ncm. The bars were subjected to mechanical testing using the Instron at a crosshead speed of 0.5mm/min to assess load to fracture. The null hypothesis states bars fabricated from all three materials will fracture at the same load.

Dr. Andre Cataluna was raised in Carson, California. After high school, he attended the University of California, Los Angeles (UCLA), earning his Bachelor of Science in biology. Dr. Cataluna continued his training at UCLA, earning both his DDS and certificate in Advanced Prosthodontics. After completing residency, he remained at UCLA, where he is a current Maxillofacial Prosthetics fellow.

Overcoming Silicone Cure Inhibition on Printed Resin Molds

Speaker: Chen Chen

Material jetting technologies have the potential to facilitate the efficient fabrication of facial prostheses for patients with maxillofacial defects. A serious issue of silicone cure inhibition exists, however, between the 3D printed resin materials and room temperature vulcanizing (RTV) silicone and this remains unresolved. One hypothesized solution to this dilemma is by the use of platinum-containing silicone primers, which accelerate the reaction to completion before the surface resin has a chance to interfere with the silicone setting. Platinum primers, however, cause silicone adhesion to the mold surface, preventing its retrieval without tear and distortion. Thus, a silicone releasing agent is required on the mold surface to facilitate separation of the silicone from the mold at devesting. Three industry formulated platinum-containing silicone primers were tested (A-304 platinum primer, A-306 platinum plus primer, A-317 platinum accelerator, Factor II) each with increasing platinum content, in combination with three silicone releasing agents (A-501 zinc stearate, A-503 silicone mold release, A-515 Ease Release 200, Factor II). Nine identical CAD/CAM fabricated resin molds for a partial nasal prosthesis were printed with a photopolymerising printed resin material (Vero™, Stratasys) using a material jetting 3D printer (J750, Stratasys). Following application of the various combinations of primer and releasing agents, a medical grade intrinisically colored RTV silicone (VST-50, Factor II) was packed into the resin molds, clamped under 500 psi of pressure and allowed to benchtop cure for 8 hours, then immersed in boiling water for 30 mins before retrieval. Analysis of silicone cure was both qualitative and quantitative. The mold surface was qualitatively observed for presence of a film of unset silicone at the margins, a stickiness or tackiness to the touch and the absence of z-lines on the surface under 5x magnification. Quantitatively, each silicone prosthesis was measured at two set points from the bulk of the prosthesis to the margin, overlayed on a 1x1mm grid paper. Deficiency in the dimensions of the prosthesis indicated the degree of unset silicone, most pronounced at the feather margins. Finally, using the most effective combination of primer and releasing agent (A-317 and A-503), an implant-retained nasal prosthesis was successfully fabricated for a patient with full rhinectomy as proof of concept.

Dr Chen Chen received her BDS degree from the University of Queensland, Australia in 2008. After graduating, she worked with the Royal Flying Doctors Service, servicing the rural and remote Aboriginal and Indigenous communities of Cape York Peninsula, Queensland, before entering private practice for a few years. In 2015, she completed a Graduate Diploma in Implantology from the University of Melbourne, and worked a few more years in private practice, before finally embarking on specializing in the US. In 2023, she completed her Advanced Prosthodontics Certificate at University of Southern California, and is a current Maxillofacial Prosthetics fellow at UCLA. In her spare time, she enjoys cycling, multi-day hikes and trail running, and hopes to put a few more Ultra-marathons under her belt before she grows old in her bones.

Debulking and Vestibuloplasty

Speaker: Alisa Pham

Osteomyocutaneous free tissue transfer is the primary method for surgically restoring a composite mandibular defect. Subsequent maxillofacial rehabilitation following mandibular resections demands meticulous pre-prosthetic soft tissue surgery for optimal mandibular resection prosthesis (MRP) function. The primary goals include establishing thin attached tissue suitable for denture bearing surfaces, creating space for MRP placement, and optimizing peri-implant tissue cuff when implants are utilized. Because the skin flap harvested from the leg exceeds 10 mm, significant debulking and vestibuloplasty (DBVP) is required and is achieved with the aid of a custom-fabricated stent. This report details a technique for planning and fabricating a 3D printed DBVP stent.

Using post reconstruction computer tomography, a 4 mm digital space from the osseous graft, and 4 mm from reconstruction hardware. This allows space for the periosteum and split thickness (0.3 mm) skin graft (STSG), the outline extends to just beyond the first molar. The borders are designed to be rounded with a 2.5 mm radius, and overall stent thickness of 5 - 6mm. Three screw holes are designed with a tripod distribution simultaneously guiding the twist drills to engage the fibula mono-cortically. The splint is printed in a material FDA cleared for 4 weeks of contact with mucosa.

At the time of surgery, the skin paddle is fully elevated leaving the periosteum and avoiding the vasculature pedicle. Tissue bulk may be used to line the lip or cheek on the buccal or facial side to preserve tongue bulk in situations of glossectomy. The prepared raw osseous trough is lined with the STSG and sutured to the periosteum creating a 8-12mm band along the neo-ridge. The splint is relined with soft denture liner then secured with mono cortical screws and left bolstering the graft for 4 weeks. Unpacking of the DBVP stent is combined with delivery or relining of an existing interim MRP to maintain the tissues as it matures.

Dr. Alisa Pham, originally from Westminster, California, pursued higher education across various institutions in the state. Following her high school graduation, she enrolled at California State University, Long Beach (CSULB), where she earned her Bachelor of Science in Biology. Dr. Pham then relocated to San Francisco to pursue her Doctorate of Dental Surgery at the University of California, San Francisco (UCSF). Returning to Southern California, she completed her residency, obtaining a certificate in Advanced Prosthodontics from West Los Angeles VA. Subsequently, Dr. Pham undertook a Fellowship at UCLA, where she currently serves as a Maxillofacial Prosthetics fellow.

Japanese Prosthodontic Society Speaker

Time: Jun 21, 2024 10:50 AM - 11:20 AM
Speaker: Takuo Kuboki

Curriculum Vitae
Education:

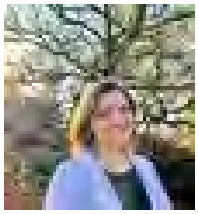
1990 Ph.D. (Doctor degree of Dental Science, "Shigaku-hakushi" in Japanese)
Graduate School of Dentistry (Doctor's Program), Okayama University
(Thesis: Biomechanical Studies on Temporomandibular Joint Loadings and Indentative Effects of the Loads on the Joint Structure)

1986 D.D.S. (D.D.S. program in Japan begins with first year of University and continues for six years)
Okayama University Dental School

Professional Training and Employment:

2023-present	President, Japan Prosthodontic Society (JPS)
2023-present	Vice Executive Director (In charge of Research Basis), Okayama University
2023-present	Vice-Dean (In charge of Dental Hospital), Okayama University Hospital
2022-present	President, Asian Academy of Prosthodontics (AAP)
2022-present	Education Delegate, ITI Section Japan
2018-present	Chair of Oral Implant Center, Okayama University Hospital
2017-present	Fellow, International Team for Implantology (ITI)
2017-present	Associate Member, Science Council of Japan
2017-present	Honored Professor, Hanoi Medical University
2016	Vice President, Okayama University
2013-present	Honored Professor, Haiphong University of Medicine and Pharmacy
2012-2015	Dean, Okayama University Dental School
2009-2012	Deputy Director, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences
2007-2009	Deputy Director, Okayama University Hospital
2003-present	Chair and Professor, Department of Oral Rehabilitation and Regenerative Medicine, Okayama University Faculty of Medicine, Dentistry and Pharmaceutical Sciences
2000-2003	Associate Professor, Department of the Fixed Prosthodontics, Okayama University Dental School
1994-1995:	Visiting Scholar, Dental Research Institute, UCLA School of Dentistry
1991-1999:	Senior Assistant Professor, Department of the Fixed Prosthodontics, Okayama University Dental Hospital

1990-1991:	Assistant Professor, Department of the Fixed Prosthodontics, Okayama University Dental School
1986-1990:	Post Graduate Course Student
1986:	Passed the Examination of National Board



Contemporary Removable Prosthodontics

Time: June 21, 2024 11:25- 11:55 AM
Speaker: Wendy Clark

For many decades, very little changed with the way we make dentures. Over the last ten years, we have finally started to see technology transform the status quo. Digital dentures are here now, and it's time to take it to the next level! As workflows evolve to incorporate digital dentistry, clinicians can benefit from interweaving components of both conventional and digital denture workflows. By the end of the session, attendees should be able to communicate and customize denture workflows with confidence.

Objectives:

By the end of this course, attendees should be able to:

1. Effectively communicate and partner with a team, including dental laboratory technicians to achieve more predictable results
2. Capture and provide the best data to achieve predictable results.
3. Walk through clinical guidelines for immediate, reference, & conventional digital dentures
4. Describe and know the indications for contemporary dental materials

Dr. Wendy Auclair Clark completed her prosthodontic training at the University of Alabama Birmingham, then practiced with Team Atlanta before her full-time faculty role in at the University of North Carolina. She has been named a "Leader in Continuing Education" by Dentistry Today, serves as a key opinion leader and author on removable prosthodontics. She was recently named Young Alumna of the Year from Marquette School of Dentistry, and a Distinguished Teaching Award from UNC.

Pterygoid Implants for Advanced Full Arch Fixed Implant Supported Prosthodontics

Time: June 21, 2024 12:00 - 12:30 PM
Speaker: Avi Bidra

Placement of implants in the posterior maxilla in terminal dentition or edentulous patients is known to be challenging due to the quality and quantity of available bone and the presence of the maxillary sinus. In an attempt to solve these problems, pterygoid implants were introduced in 1989. Though not popularly used, the primary advantage of these implants is their graftless nature, engagement of dense cortical bone of the pterygoid plates, elimination of distal cantilevers and serving as a reserve implant. The primary disadvantage is the associated learning curve, technique sensitivity, anatomic challenges. This presentation will provide a scientific overview as well as present survival data about pterygoid implants, and make the case for their broader utilization in prosthodontic treatment.

Course Objectives:

1. To understand that implant placement is subcrestal prosthodontics and how remote skeletal anchorage devices can aid in improving patient's quality of life.

2. To understand the advantages and disadvantages of pterygoid implants in the rehabilitation of edentulous and terminal dentition patients.

3. To understand the indications and contraindications of pterygoid implants.

4. To understand the clinical anatomy of the pterygoid region and technique for placement.

Dr. Bidra is a board certified maxillofacial prosthodontist and serves as clinical professor and director of the prosthodontics residency program at UCONN School of Dental Medicine. He maintains a part time private practice restricted to Implant Surgery and Prosthodontics in Glastonbury, CT. He has lectured at national and international meetings, as well as published extensively in international scientific journals. He has developed diagnostic and treatment protocols for full arch fixed implant prostheses that are used by many clinicians and prosthodontics residency programs worldwide. Dr. Bidra is the recipient of the ACP's Distinguished Clinician Award as well as the Educator of the Year Award.

All in 4-4-4 Hybrid Prosthesis; Bridging the Affordability Gap

Time: June 21, 2024 12:35 - 1:05 PM
Speaker: Lambert Stumpel

The All in 4-4-4, is a novel workflow that allows the fabrication of a metal-resin-fixed-hybrid-prosthesis supported on 4 implants, with a variable cost for parts and material of $ 400 and a (laboratory) production time of approximately 4 hours. This allows for the possibility to deliver a final or long term provisional on the day of implant placement. Due to its low cost and in-house production feasibility, it might allow more patients access to full arch implant care.

Course objectives:

1. Understand the workflow to fabricate a same day, high quality, hybrid prosthesis.

2. Appreciate what the ideal number of supporting implants is for a full arch fixed prosthesis.

3. Make the wonder of implant care more accessible for our patients.

Dr. Lambert J Stumpel is a 1982 graduate from the Royal University of Utrecht, School of Dentistry, the Netherlands. He is the developer of the Quikbar® and 3D Click Guide®, holder of four patents, and has authored 38 peer reviewed publications and two textbook chapters. He is a diplomat and fellow of the Academy of Osseointegration and a member of the Pacific Coast Society for Prosthodontics. Dr. Stumpel maintains a private practice in San Francisco, CA and is the CEO of Idondivi, Inc.

Navigating Technical Complications with Implant-Supported Prostheses

Time: June 22, 2024 8:00 - 8:25 AM
Speaker: Despoina Bompolaki

Dr. Despoina (Despina) Bompolaki is a Prosthodontist and a Diplomate of the American Board of Prosthodontics. She currently serves at the Board of Directors of ACP, as the Continuing Education Division Director.

She received her DDS from the National and Kapodistrian University in Athens Greece, and holds a Certificate in Prosthodontics and a Master's in Oral Biology from Texas A&M University. She is currently an Associate Professor with tenure and the Director for Clinical Restorative Dentistry at Oregon Health & Science University.

Dr. Bompolaki serves on multiple committees within professional organizations, including the Research Submission Committee of the Academy of Osseointegration and the Osseointegration Foundation Research Grant Committee. She has also previously served as Chair of the National Prosthodontic Resident Examination Committee of the ACP.

She is a Fellow of the American College of Prosthodontists (ACP), a Fellow of the Academy of Osseointegration (AO), and a member of the American Association for Dental and Craniofacial Research (AADOCR), and the American Dental Education Association (ADEA). She maintains an active private practice focused in fixed, implant and removable prosthodontics.

As a researcher, she focuses on dental implant outcomes and complication management. Her work has been internationally recognized and published in peer-reviewed journals.

Predictability in Peri-Implantitis Treatment

Time: June 22, 2024 8:30 - 8:55 AM
Speaker: David Kim

Titanium dental implants are considered one of the most preferred and predictable treatment options for patients with missing teeth and occlusal rehabilitation. With the growing number of implants placed each year, implant-related complications are frequently reported. Among them, the prevalence of peri-implantitis is of great concern to all clinicians. To manage peri-implantitis around titanium implants, the non-surgical/surgical approach generally consists of mechanical debridement, antiseptics, local or systemic antibiotics, and resective or regenerative procedures. Various treatment protocols have been proposed to decontaminate the implant surface to facilitate the regeneration of lost peri-implant tissue. This presentation will introduce different approaches to prevent and manage this complication.

Learning Objectives:

1. Review etiology, diagnosis, and treatment options for peri-implantitis
2. Review of the non-surgical and surgical treatment protocols for peri-implantitis
3. Understand the importance of periodontal maintenance for implant patients.

Dr. David M. Kim received his DDS from the University of Maryland Dental School and completed his periodontology training and Doctor of Medical Science from the Harvard School of Dental Medicine. He is an Associate Professor and the Director of Continuing Professional Education at HSDM. He is a diplomat of the American Board of Periodontology and maintains a clinical practice at the Massachusetts General Hospital.

What's: New, Old, Hot and Cold: A Personal Journey Through the Science of Dentistry

Time: June 22, 2024 9:00 - 9:25 AM
Speaker: Chandur Wadhwani

Objectives:

1. Discussion on the most appropriate way to diagnose a healthy vs unhealthy implant site

2. Laboratory techniques to improve titanium anodization (what chemicals to use- and what definitely not to!)

3. How to optimize screw tightening techniques- and reduce risk of failure

4. Dealing with the weakness of an screw retained implant crown- the Screw access channel

Chandur Wadhwani – full time private Practice In Bellevue Wa- is a part time researcher, evaluating clinically relevant techniques.

Where they came from and where they should go - in our practice or out of sight.

He works with multiple Universities where he holds affiliate titles as assistant and associate professor in Prosthodontics and periodontics.His awards include the Distinguished lecturer from the American College of Prosthodontics as well as clinical innovations from the Academy of Osseointegration. He has published over 80 articles in peer review journals and has chapters in 7 textbooks. Chandur lectures nationally and internationally.

Implant Re-Rehabilitation: The Operative Sequences for a Successful Outcome

Time: June 22, 2024 9:30 - 9:55 AM
Speaker: Nadim Z. Baba

Implant treatment is known to be safe with high clinical success. However, after several years of service, prosthodontic complications and/or failures do occur. Clinicians must be acquainted and competent in handling the complications or failures that may present to their private practice. Complications can range from prosthetic problems deriving from prosthesis related complications, component fractures and many others. This presentation will discuss the fundamentals required to accomplish a functional and esthetic outcome: understanding the patient's needs, treatment planning, team collaboration, use of digital technology, and the selection of appropriate restorative material to achieve a predictable and successful re-rehabilitation.

Learning Objectives:

1. Review relevant scientific principles and clinical procedures required to create an ideal esthetic and functional treatment plan
2. Highlight the interdisciplinary approach to treatment planning these failing cases with the use of digital technology
3. Discuss materials available for the clinician to improve functional outcomes and meet patient expectations

Dr. Baba received his DMD degree from the Université de Montréal in 1996. He completed a Certificate in Advanced Graduate Studies in Prosthodontics and a Masters degree in Restorative Sciences in Prosthodontics from Boston University School of Dentistry in 1999. Dr. Baba serves as a Professor in the Advanced Education program in Implant Dentistry at Loma Linda University School of Dentistry, an Adjunct Professor at the University of Texas Health Science Center School of Dentistry in the Comprehensive Dentistry Department, and maintains a part-time private practice in Glendale, CA. He is the Past President of the American College of Prosthodontists and an active member of various professional organizations and a Diplomate of the American Board of Prosthodontics and a Fellow of the American College of Prosthodontists and the Academy of Prosthodontics. He is also a reviewer for the Journal of Prosthodontics, the Journal of Prosthetic Dentistry, Section editor for Prosthodontics in the Journal of Esthetic and Restorative Dentistry, and was the Associate Editor for the Aesthetics/Prosthetics/Restorative section at the Journal of Dental Traumatology for 11 years. Dr. Baba has received several honors and awards including: The David J. Baraban Award from Boston University, the Claude R. Baker Faculty award for Excellence in Teaching Predoctoral Fixed prosthodontics in 2009 from the AAFP, and the California dental Association Arthur A. Dugoni Faculty award in 2010.

He is the author of numerous publications and has published a book entitled “Restoration of Endodontically treated teeth: evidence-based diagnosis and treatment Planning” and has lectured nationally and internationally.

Virtual Patient: Parameters to Improve its Accuracy, What Works and What Doesn't

Time: June 22, 2024 10:35 - 11:00 AM
Speaker: Marta Revilla-Leon

Digital dentistry is not intraoral scanners, 3D printers, or CAD programs - these are just tools. The quest is more about how to create digital workflows to be efficient and reliable, and less about reshaping conventional procedures with digital tools. Dental professionals aim to balance the new digital possibilities with fundamental prosthodontic concepts and evidenced-based procedures. Additionally, the continuous development and enhancements of technology challenges dental professionals to stay up-to-date. This presentation will review the latest trends in digital prosthodontics, virtual patient integration and the literature that supports them, including facial scanners, motion capture technologies, and artificial intelligence.

Objectives:

1. Recognize that digital technologies are only tools and conventional concepts are still vital.

2. Identify the main data acquisition methods and the factors that can influence its accuracy for a virtual patient integration

3. Distinguish what works and what does not for a virtual patient integration, with special attention to new AI possibilities in dentistry.

Dr. Marta Revilla is Faculty and Director of Research and Digital Dentistry at the Kois Center. Dr. Revilla-León obtained her PhD in Prosthodontics and Digital Dentistry at ACTA University in Amsterdam. She obtained her MSD in prosthodontics at the University of Washington in Seattle and a MS in Esthetic Dentistry at the Complutense University of Madrid.

Dr. Revilla-León is specialist in digital dentistry with more than 170 publications in peer-reviewed dental journals in the last 4 years related with facial and intraoral scanning methods, virtual patient integration, digital implant scans, polymer, metal, and ceramic 3D printing, CAD SWs and artificial intelligence for dental applications.

Currently, Dr. Revilla is also Affiliate Faculty in the Graduate in Prosthodontic Program at the University of Washington in Seattle and in the Graduate in Prosthodontic Program at Tufts University in Boston.

Tradition Meets Technology for Full Arch Immediate Load Workflows


Time: June 22, 2024 11:05- 11:30 AM
Speaker: Armand Bedrossian, Ed Bedrossian

Course Overview:

As digital technology has shown to provide more efficient treatment protocols, fundamental knowledge of analog implant principles is imperative for successful treatment outcome. This seminar will highlight the restorative aspects of implant dentistry, with an overview on traditional principles, while focusing on using intraoral scanning to capture the definitive impression for complete arch implant therapy, with a disruptive and innovative technique and workflow. A case will be thoroughly examined in depth, demonstrating how a contemporary dental practice between an oral surgeon and prosthodontist may collaboratively and predictably implement this work flow for restoring the definitive complete arch implant supported prostheses.

Learning objectives:

1. Understanding of the gold standard for restoring complete arch implant supported prosthesis. 2. Comprehensive understanding of the evolution of digital technology with complete arch treatment and how we continue to adapt to the current and ever-evolving workflows. 3. The attendees will have the opportunity to review an A-Z workflow for the planning, converting and restoring a complete arch case using modern digital technology available today.

Dr. Armand Bedrossian is a board-certified prosthodontist and currently practices in his hometown of San Francisco. He received his DDS from the University of the Pacific Arthur A. Dugoni School of Dentistry in 2015. He completed the advanced prosthodontics residency program and received his master’s degree at the University of Washington, where he is currently an affiliate assistant Professor. He is a diplomate of the American Board of Prosthodontics and is also a fellow of the ITI and speaks and publishes on restorative implant dentistry, primarily focusing on a complete digital workflow for implant treatment.

Additive Manufacturing Ceramic in Prosthodontics: What the Future Holds

Time: June 22, 2024 11:35 - 12:00 PM
Speaker: Amirali Zandinejad

Description:

Dental ceramics have become increasingly popular as restorative materials because of their esthetics and biocompatibility. Although today milling considered to be the gold standard for manufacturing ceramics with proven records, it does carry its own shortcomings and limitations. Additive manufacturing (AM), also known as 3D printing was introduced as a new manufacturing technique in dentistry and today 3D printing is available for manufacturing ceramic restorations. This new technology enables the production of parts with complex geometries, controlled properties, and surface characteristics with many innovative potentials in clinical dentistry.

Objectives:

1. Advantages of additive manufacturing and available technologies for 3D printing ceramics
2. The properties of 3D printed ceramics and its application in prosthodontics
3. The innovative ideas and the future of 3D printing ceramics in prosthodontics

Dr. Zandinejad, is a full-time prosthodontist at ClearChoice Implant Dentistry Associates of Arlington in Texas. He completed his dental training in 1996 and continued his education by finishing multiple residency programs in operative dentistry, AEGD and prosthodontics. He served as tenured associate professor and director of AEGD residency program at Texas A&M university, school of dentistry from 2015 to 2022. He is an author or co-author of more than 60 scientific manuscripts and abstracts, serves as reviewer for many scientific dental journals and holds multiple patents on new prosthetic design and bio-inspired dental restorations using 3D printing technologies. He lectures nationally and internationally on new technologies, 3D printing ceramics, implant and esthetic dentistry.

Prospects of Ceramic Implants in Modern Implantology: Anticipating Preferences and Trends Set by Generation XYZ

Time: June 22, 2024 12:05 - 12:30 PM
Speaker: Ulrich Volz

Synopsis:

This presentation acts as a bridge across generations, observing how attitude shifts and technological progress jointly shape the future of ceramic implants and their role in prosthodontics. Exploring generational attitudes and digital advancements, we highlight their influence on adopting oral healthcare technologies. We cover ceramic implant benefits, immediate loading, soft tissue management, and osseointegration while considering foresight and technological synergy. We employ advanced digital implantology and guided navigation systems to create tailored biomimetic solutions for ceramic immediate implantation, improving treatment efficiency and cost-effectiveness for the next generations.

Objectives:

1. General Behaviors and Patterns Across Generations

2. Their Specific Impact on Implant Dentistry

3. Ceramic Implants and the Feasibility of Immediate Implantation

4. Comprehensive Guided Navigation Systems and Generation-Specific Instrumentation Needs

Dr. Volz, with a Dental Degree from Ulm, Germany, is a prolific figure in implantology. He's placed 29,000+ ceramic implants since 2001. He introduced the first market-ready ceramic implant and pioneered two-piece ceramic implants (2002-2012). He is the founder and owner of SDS, SWISS DENTAL SOLUTIONS, the world market leader in ceramic implants, and stablished the SWISS BIOHEALTH CLINIC and EDUCATION CENTER with 4,000+ annual participants. Dr. Volz holds certifications in both Biological Dentistry and Implantology.

Achieving Prosthodontic Utopia: What Does the Future Hold?

Time: June 22, 2024 12:35 - 1:00 PM
Speaker: Radi Masri

Objectives:

1. To describe factors that drive innovation in dentistry and prosthodontics

2. To become familiar with artificial intelligence innovations with potential to alter clinical practice

3. To Illustrate the impact of advances in artificial intelligence on prosthodontic practice

Dr. Masri is a tenured Professor at the University of Maryland School of Dentistry and School of Medicine. He is the Program Director of the Advanced Education Program in Prosthodontics and the Director of the Division of Prosthodontics at the Department of Advanced Oral Sciences and Therapeutics. He is the Editor-in-Chief of the Journal of Prosthodontics, A past president of the American Academy of Fixed Prosthodontics, and a past president the American Board of Prosthodontics.

Dr. Masri is heavily involved in developing and implementing cutting edge technologies used in oral health care. He lectures nationally and internationally and serves as an external examiner for international dental schools in the field of prosthodontics. Dr. Masri is the author of the first book on the applications of digital technologies in the dental field. He has authored numerous scientific papers, holds several patents, and currently supervises a federally funded research laboratory.

Dr. Masri received many honors including the 2013 American College of Prosthodontist (ACP) Clinician Researcher Award, the 2015 Maryland LIFE Award for the most promising technology, the 2018 ACP Distinguished Service Award, the 2021 Elkins-Wilson Endowed Professorship, and the 2023 Garver-Staffanou Award from the American Academy of Fixed Prosthodontics.

2024 Poster Presentations

- Effectiveness of dental implants indicated for early-loading protocols on peri-implant bone healing: An animal study. *(Toru Ogawa, Sheng Zheng, Masayo Nemoto, Xie Ziqi, Hu Longshuang, Kenta Shobara, Hiroki Hihara, Hiroyasu Kanetaka)*

- Accuracy of 3D-printed castable resin patterns for removable partial denture frameworks using the vacuum-sealed method *(Jingrong Wang, Anna Miyayasu, Maiko Iwaki, Roubing Ha, Manabu Kanazawa 1 Digital Dentistry, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University 2 Advanced biomaterials, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University)*

- Test-Retest Reliability of Alveolar Bone Mineral Density Assessment for Peri-Implantitis *(Yuji Shimomura - Center for Innovative Clinical Medicine, Okayama University Hospital, Okayama, JAPAN Aya Kimura Ono - Center for Innovative Clinical Medicine, Okayama University Hospital, Okayama, JAPAN Yoko Kurosaki - Center for Innovative Clinical Medicine, Okayama University Hospital, Okayama, JAPAN Takuya Mino - Department of Removable Prosthodontics and Occlusion, Osaka Dental University, Osaka, JAPAN Takaharu Higuchi - Department of Oral Rehabilitation and Regenerative Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, JAPAN Kazuki Sakamoto - Department of Oral Rehabilitation and Implantology, Okayama University Hospital, Okayama, JAPAN Kana Tokumoto - Department of Oral and Maxillofacial Surgery, School of Medicine, Hyogo Medical University, Hyogo, JAPAN Takuo Kuboki - Department of Oral Rehabilitation and Regenerative Medicine, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, JAPAN)*

- Establishing the vertical dimension of occlusion using a physiological and craniometric method *(Luis A. Sanchez DDS, Veronica Manteca DDS, Daniel Llamas DDS.)*

- Determination of the Optimal Cell Density for Immunofluorescence Observation of MC3T3-E1 Cells on Zirconia *(Bohua Wang, Masanao Inokoshi, Hiroto Nakai, Takanori Iwata, Shunsuke Minakuchi, Manabu Kanazawa - Department of Gerodontology and Oral Rehabilitation, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Tokyo, Japan; Sayaka Katagiri, Yujin Ohsugi, Peiya Lin - Department of Periodontology, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Tokyo, Japan)*

- Restorative Space in a Patient with Implant-Supported Overdentures: A Diagnostic Analysis for Locator System: A Case Report *(Erika S. Valencia DDS, Veronica Manteca. DDS, Daniel Llamas DDS)*

- Bond strength evaluation of light-cure hard chairside relining material to CAD/CAM milled denture base materials *(Nguyen Thi Khanh An, Tamaki Hada, Maiko Iwaki, Shunsuke Minakuchi, Manabu Kanazawa)*

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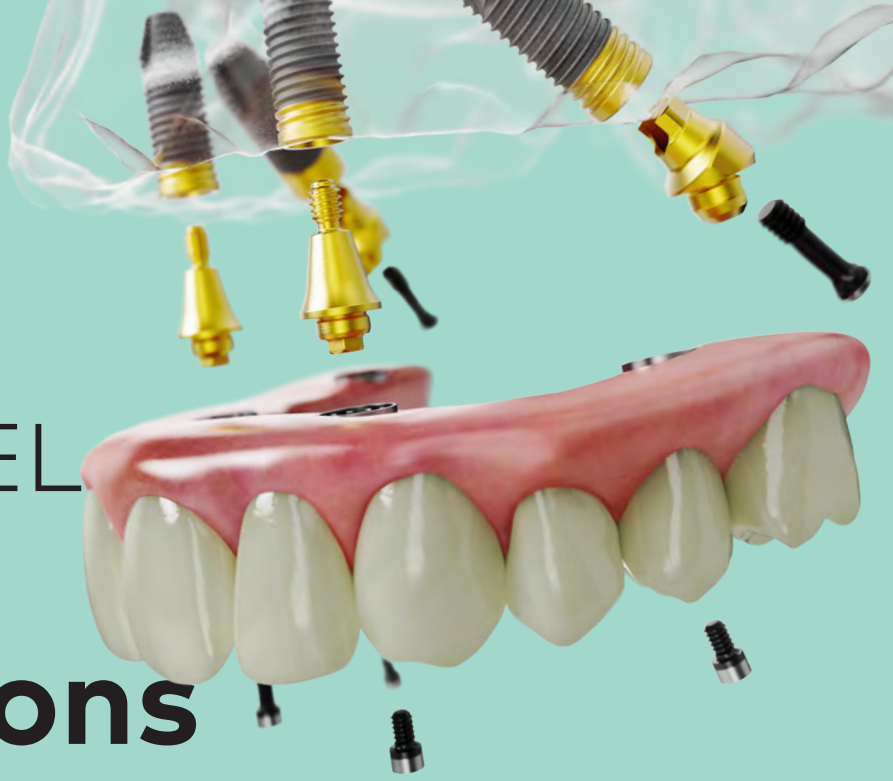

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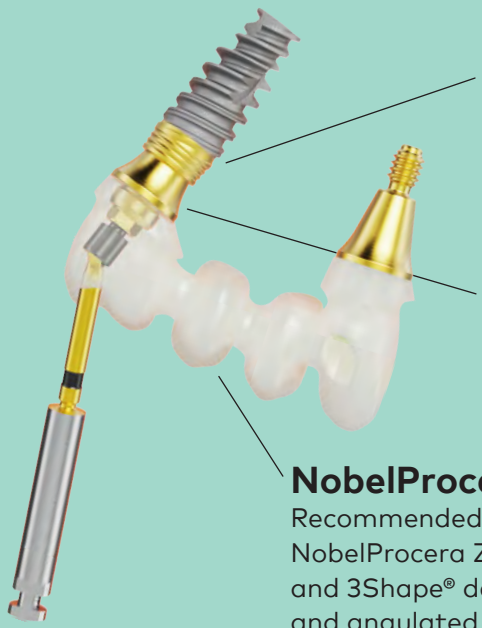

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* Versus implant insertion axis

1) Milleret V, Lienemann PS, Gasser A, et al. Rational design and in vitro characterization of novel dental implant and abutment surfaces for balancing clinical and biological needs. Clin Implant Dent Relat Res 2019;21(Suppl 1):15-24. 2) Susin C, Finger Stadler A, Musskopf ML, et al. Safety and efficacy of a novel, gradually anodized dental implant surface: A study in Yucatan mini pigs. Clin Implant Dent Relat Res 2019;21(Suppl 1):44-54. 3) Nobel Biocare. Data on file. 4) Susin C, Finger Stadler A, Fiorini T, et al. Safety and efficacy of a novel anodized abutment on soft tissue healing in Yucatan mini-pigs. Clin Implant Dent Relat Res 2019;21(Suppl 1):34-43.

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